(12) INTERNATIONAL A

ACATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



| 1987| | 111920 | 11 111910 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 |

(43) International Publication Date 15 July 2004 (15.07,2004)

 \mathbb{PCT}

(10) International Publication Number WO 2004/058541 A3

(51) International Patent Classification⁷:

B32B 3/06

(21) International Application Number:

PCT/US2003/040661

(22) International Filing Date:

17 December 2003 (17.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/436,081

23 December 2002 (23.12.2002)

(71) Applicant (for all designated States except US): GREEN TOKAI CO., LTD. [US/US]; 55 Robert Wright Drive, Brookville, OH 45309 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): YAMAMOTO, Hiroaki [US/US]; 119 Carter Court, Brookville, OH 45309 (US).

(74) Agents: PEACOCK, Bruce, E. et al.; Wegman Hessler & Vanderburg, Suite 200, 6055 Rockside Woods Blvd., Cleveland, OH 44131 (US).

(81) Designated States (national): JP, US.

(84) Designated States (regional): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:

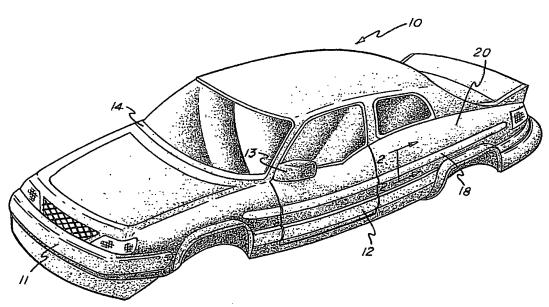
with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 28 October 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COLOR MATCHED AUTOMOTIVE TRIM AND BODY PART



(57) Abstract: An automotive trim part (18) comprising a pigmented transparent layer (32) overlying an intermediate bright film layer (30). The intermediate bright film layer (30) overlies a thermoplastic olefin layer (26). The thermoplastic olefin layer (26) is mounted to an automobile (20). The combination of the intermediate bright film layer (30) with the pigmented transparent layer (32) provides unique gloss and color qualities to automotive trim parts (18) such that the color of the automobile (20) may be matched by the automotive trim part (18) while providing a glossy sheen comparable to the gloss of chrome, for example. As a result, the visual attractiveness of automobiles (20) is enhanced and durable automotive trim parts (18) with no after-fabrication painting are provided.





INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/40661

A. CLASSIFICATION OF SUBJECT MATTER		
IPC(7) : B32B 3/06		
US CL : 428/31; 296/1.08; 264/259		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
U.S.: 428/31; 296/1.08; 264/259, 132, 513; 293/128		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
•		
· ·		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
TO BE RESEVANT		
Category *	Citation of document, with indication, where a	appropriate, of the relevant passages Relevant to claim No.
Α	US 6,180,195 A (ELLISON et al.) 30 January 2001,	see total document.
)
Α	US 5,968,614 A (REICHENBERGER et al.) 19 Octo	ober 1999, see total document.
	•	•
		· [
		\
		Í
		į
		{
		,]
		• }
		} ·
		}
]
ì		}
		{
ļ		
	•	į į
Further	documents are listed in the continuation of Box C.	See patent family annex.
* S _I	ecial categories of cited documents:	"T" later document published after the international filing date or priority
"A" document	defining the general state of the art which is not considered to be of	date and not in conflict with the application but cited to understand the
particular	relevance	principle or theory underlying the invention
"E" earlier ann	Banting on account that a	"X" document of particular relevance; the claimed invention cannot be
	lication or patent published on or after the international filing date	considered novel or cannot be considered to involve an inventive step
"L" document	which may throw doubts on priority claim(s) or which is cited to	when the document is taken alone
establish ti specified)	ne publication date of another citation or other special reason (as	"Y" document of particular relevance; the claimed invention cannot be
specified)		considered to involve an inventive step when the document is
"O" document	referring to an oral disclosure, use, exhibition or other means	combined with one or more other such documents, such combination being obvious to a person skilled in the art
	published prior to the international filing date but later than the	•
priority date claimed document member of the same patent family		"&" document member of the same patent family
ate of the actual completion of the international search Date of mailing of the international search		
The decide completion of the international search		Date of mailing of the international search report
21 July 2004 (21.07.2004)		10 SEP 2004
	ling address of the ISA/US	Authorized officer
Mail Stop PCT, Attn: ISA/LIS		100 -1/1/chan
Commissioner for Patents		Glenn Dayoan
P.O. Box 1450 Alexandria, Virginia 22313-1450		Telephone No. (703) 308-1113
		1 coophone 140. (705) 500-1115
acsimile No. (703)305-3230		

Form PCT/ISA/210 (second sheet) (July 1998)